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C-O-N-F-I-D-E-N-T-I-A-L | SEE BOTTOM OF PAGE FOR SPECIAL CONTROLS, IF ANY

INFORMATION REPORT

PREPARED AND DISSEMINATED BY
CENTRAL INTELLIGENCE AGENCY

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COUNTRY: Hungary

SUBJECT: Description of the East Main Canal/ Proposed West Main Canal

DATE DISTRIBUTED: 15 Apr 57

NO. OF PAGES: 3 | NO. OF ENCLS.: 3

SUPPLEMENT TO REPORT #

25X1

THIS IS UNEVALUATED INFORMATION

25X1

1. [redacted] 25X1

[redacted] The canal follows a 25X1
course [see enclosure A] from the [redacted] River, approximately 95 km south to the Berettyo River to Bakonszeg [47 11N - 21 26E]. Construction on the upper end of the canal from Hajdunanas [47 50N - 21 25E] to Balmazujvaros [47 36N - 21 30E] was started prior to World War II, principally for irrigation for the rice fields, and eventual connection of the Tisza and the Berettyo Rivers. The canal has an average width of 37 yards, depending on the season of the year. In the spring, it is three meters in depth and drops to two meters in autumn. [Enclosure B shows a cross-section view of the canal]. The bottom of the canal is 89.20 meters above the Adriatic Sea level. The sides slope up at a ratio of 1:2.5 to the shoulders. Above the shoulders of the canal, the levees rise at a 1:2.5 ratio. The shoulders were used for construction and excavation equipment. It is designed to handle 800-1000 ton barges, pulled through by horses along the clay-banked levees. Two small (600 ton) barges can pass each other.

2. [redacted] in November 1956, all excavation work had been completed on the canal; however, it was not navigable because two of the four RR bridges spanning the canal were not completed. The excavation was done by ten heavy diesel excavators, working 24 hrs/day, removing 30 thousand cu/ft of earth. [redacted] It moved on rails and 25X1
was self-powered by electricity generated by a diesel engine. After the work on the canal was completed, it was sent to strip mine lignite near Miskolc. [redacted] machine used as many as 32 men for a three shift oper- 25X1
ation. One of the unique pieces of equipment was an East German excavator that moved on giant "steps". The Soviets claimed they gave it to the Hungarian government as a gift. [redacted] 25X1
there were three men assigned to each machine for each eight hour shift. They included the master or operator, the maintenance mechanic, and an oiler. Shifts worked were from 0002-1000, 1000-1600, and 1800-0200. The average monthly wages were 1600 forints for the operator, 1200 forints for the mechanic, and 1000 forints for the oiler.

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(21) Reinforced concrete bridge for traffic from Kalocsa [47 25N - 21 16E] to Bajaszentistvan.

(22) Main two-lane asphalt highway between Budapest and Moscow. Traffic crosses canal over a two-lane reinforced concrete bridge. This area is closely guarded by Soviet soldiers because the main communication lines between Budapest and Moscow are located here.

(23) Temporary, single-track wooden RR bridge for traffic from Budapest to Moscow. It was destroyed during World War II. A new triple-track RR bridge is planned, but there was no money available to build it.

(24) Planned concrete bridge between Kaba [47 21N - 21 18E] and Berecske [47 21N - 21 34E].

(25) Concrete bridge for road connecting Foldes [47 17N - 21 22E] and Berettyoujfalu [47 13N - 21 36E].

(26) Reinforced concrete bridge under construction [November 1956], for traffic from Foldes to Berettyoujfalu. It would have been completed except for the revolution.

(27) Last of the four RR bridges on the canal. It is a temporary wooden structure for single track use from Berend to Berettyoujfalu.

(28) Temporary lock and channel connecting the canal with the Kis Kiliu River. The lock is constructed here for the retention of the canal water, and the excess is allowed to overflow into the river. Barges cannot be discharged here. A permanent lock has been started, in November 1956, 25X1

25X1

(29) Berettyo River. Plans are to have the East Main Canal extend to the Berettyo River about ten km south.

Proposed West Main Canal

4. The Hungarian government was planning to construct a West Main Canal between the Tisza and the East Main Canal just about the same time as the revolution. This canal will not be navigable. It will be used only for irrigation, as a reservoir, and for fishing. 25X1

-end-

25X1

Enclosures: (A) Map showing the course of the East Main Canal
(B) Cross-section sketch of the East Main Canal
(C) Schematic Diagram of the East Main Canal

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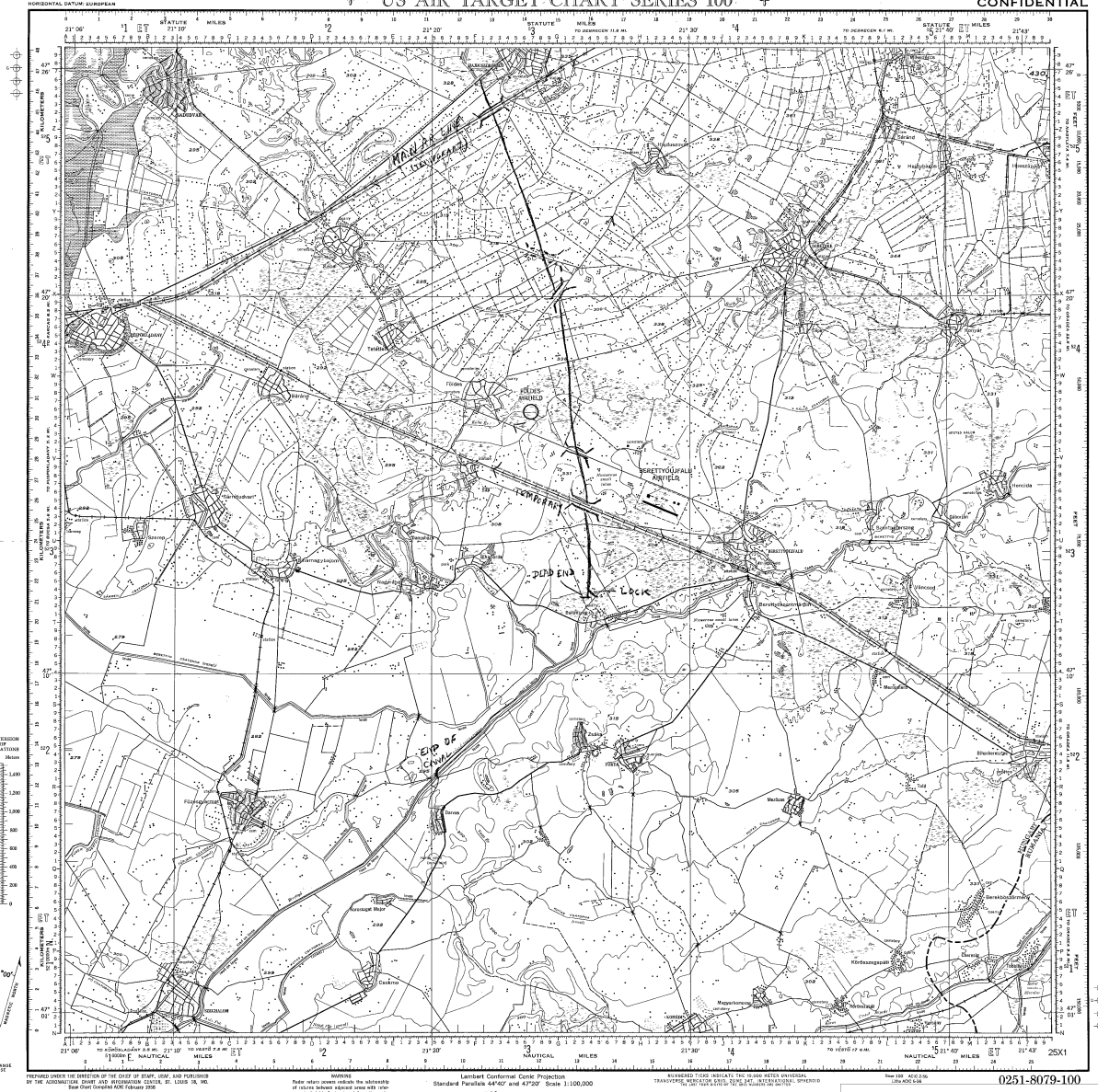
CONFIDENTIAL

0251-8079-100

ELEVATIONS ARE IN FEET
CONTOUR INTERVAL 100 FEET
VERTICAL DATUM IS MEAN SEA LEVEL
HORIZONTAL DATUM: EUROPEAN

US AIR TARGET CHART-SERIES 100

CONFIDENTIAL


MAIN RR LINE
LOOP
TEMPORARY
DEAD END
LOCK
END OF CANAL
BERETTYÓÚJFALU AIRFIELD
HOLDS ANGELS
BERETTYÓÚJFALU
TÉGLÁS
TÁRKÁNY
HAJDÚSZOVÁT
HAJDÚSZOVÁT
HAJDÚSZOVÁT

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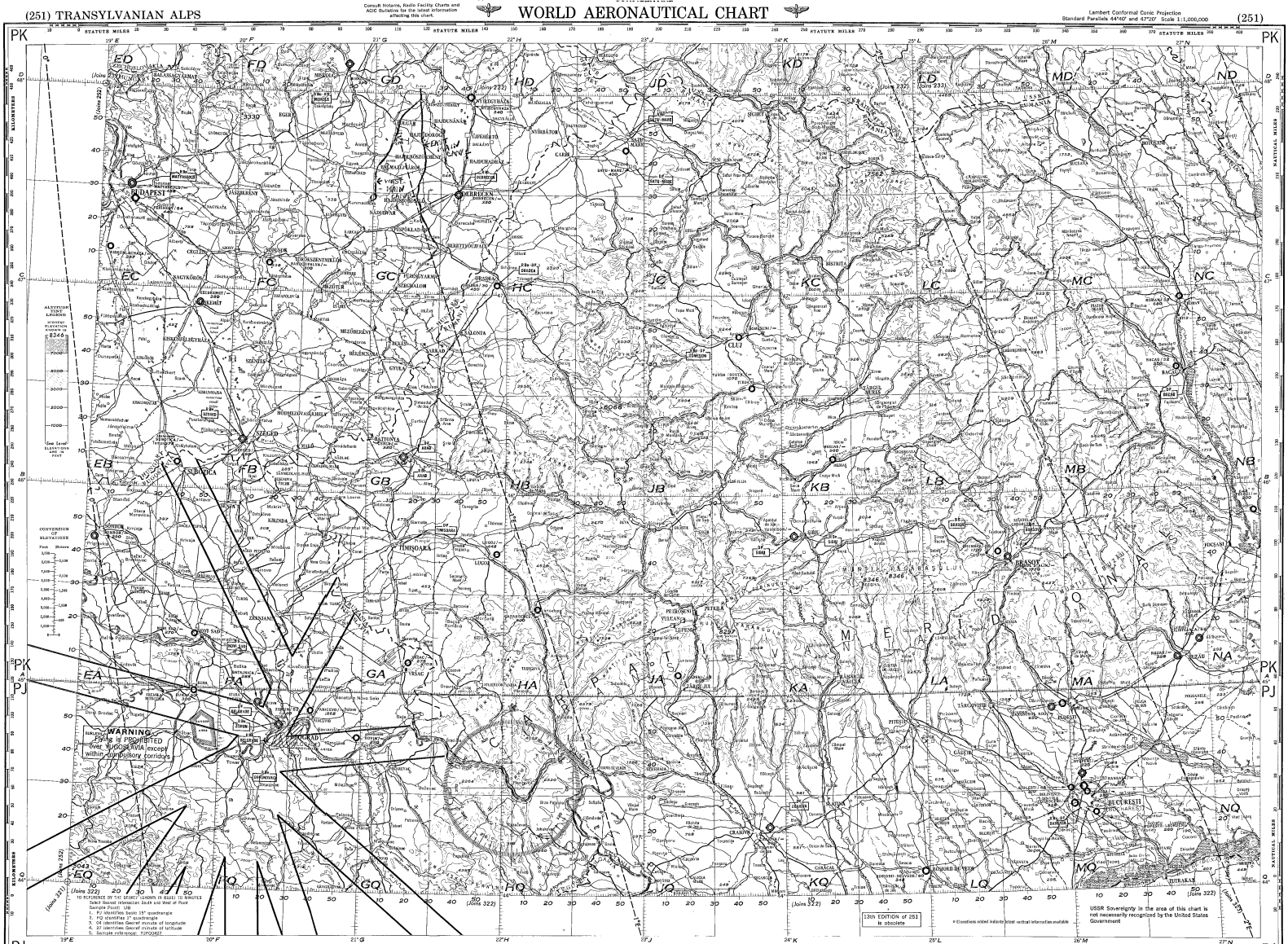
(251) TRANSYLVANIAN ALPS

Consult Notams, Radio Facility Charts and ACIC Bulletins for the latest information affecting this chart.

WORLD AERONAUTICAL CHART

Lambert Conformal Conic Projection
Standard Parallels 44°40' and 47°20' Scale 1:1,000,000

(251)



(251)

PUBLISHED BY THE AERONAUTICAL CHART AND INFORMATION CENTER
AIR PHOTOGRAPHIC AND CHARTING SERVICE, USAF(MATS)
UNITED STATES AIR FORCE, ST. LOUIS 18, MO.
APRIL 1955 (ACIC) Revised OCTOBER 1956 (ACIC) BASE NO. 5-B

NOTE: It is requested that all users of this chart mark hereon any errors or omissions and that additions which come to their attention also be mailed direct to "COMMANDER, AERONAUTICAL CHART AND INFORMATION CENTER, SECOND AND ARSENAL ST., ST. LOUIS 18, MISSOURI"
See other side for further details.

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OP ACIC 1-57 Supersedes ACIC 12-56
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SCALE 1:1,000,000
14th EDITION
AIR INFO CURRENT JAN 1957

TRANSYLVANIAN ALPS (251)

BULGARIA - HUNGARY - RUMANIA - U.S.S.R. - YUGOSLAVIA

25X1

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AERONAUTICAL CHART SUPPLY

(Ref: AF Reg. 67-3)

1. **Aeronautical Charts, Maps, and Publications** distributed by the Aeronautical Chart and Information Center (ACIC) are indexed or listed in the current edition of the USAF CATALOG OF AERONAUTICAL CHARTS AND AERONAUTICAL INFORMATION PUBLICATIONS which is published semi-annually.

2. New editions of charts, replacement charts, hazardous charts, chart correction notices, obsoletion procedures, and other pertinent information pertaining to charts and supply are contained in the ACIC BULLETIN which is published twice a month.

3. **Requisitioning by USAF Activities:** USAF Activities requisitioning aeronautical charts, maps, and publications shall do so on appropriate forms and in accordance with AF procedures as specified in the latest edition of the USAF CATALOG OF AERONAUTICAL CHARTS AND AERONAUTICAL INFORMATION PUBLICATIONS and in AF Regulation 67-3.

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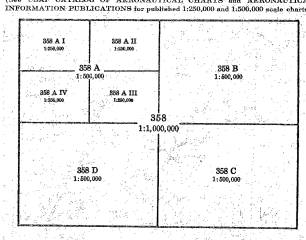
(See USAF CATALOG OF AERONAUTICAL CHARTS and AERONAUTICAL INFORMATION PUBLICATIONS for published 1:250,000 and 1:500,000 scale charts.)



The WAC sheet and sheet lines form the basis for the format of the 1:500,000 USAF Pilotage Charts and 1:250,000 USAF Jetnavigation Charts. The coordinates and numbers shown above illustrate the correspondence internationally of the three series. Together they cover 20° 00' sheet size at each of three latitude zones.

ALL USERS: ATTENTION

1. The USAF Aeronautical Chart and Information Center is making a concerted effort to furnish the user with accurate charts, prepared from the best available source material, and revised as newer and more adequate information becomes available.

2. The "flight-check" service performed by the chart user, is in reality a first-hand report on the utility and reliability of any chart. As such, it becomes primary source material for the chart maker. By supplying him with up-to-date information, carefully plotted and verified, the chart user serves as a vital link in chart improvement.

3. **The chart user should mark corrections to aeronautical information and chart detail (such as roads, drainage, spot elevations, etc.) on the face of the chart, on an overlay of the area, or under "Remarks" below. In reporting elevation corrections, the method used by the observer in making the determination should be indicated.**

4. The corrected chart shall be forwarded to Commander, Aeronautical Chart and Information Center, Second and Arsenal, St. Louis 18, Missouri, in accordance with established security regulations.

"Remarks"

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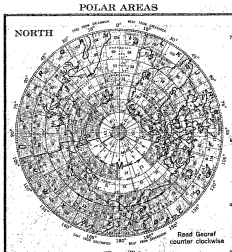
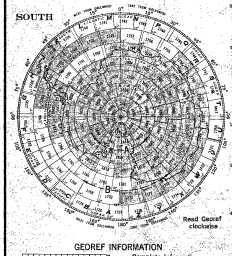
POLAR AREAS

NORTH



Read Georef counter clockwise

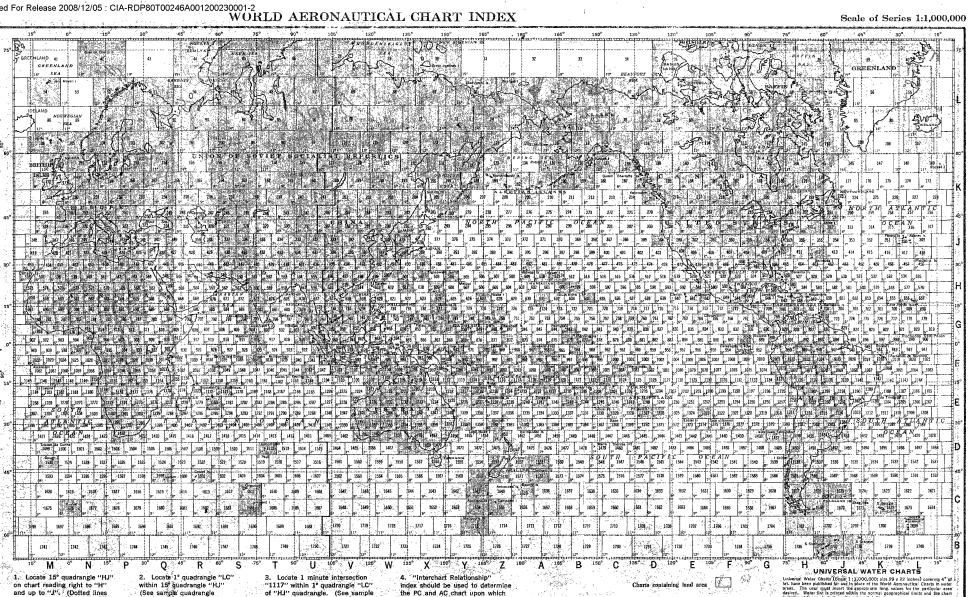
SOUTH



Read Georef clockwise

WORLD AERONAUTICAL CHART INDEX

Scale of Series 1:1,000,000



GEOREF INFORMATION

"HJ" Quadrangle (15° breakdown)

Complete Information on World Geographic Reference System (Georef) is available in AFR 55-5.

Georef portrayed hereon is merely a guide for chart user to select the WAC upon which a given Georef point may be found. (example HJLC 1117) which falls on WAC 412.

1. Locate 15° quadrangle "HJ" on chart reading right to "H" and up to "J". (Dotted lines indicate 15° Georef quadrangles.)

2. Locate 1° quadrangle "LC" within 15° quadrangle "HJ". (See sample quadrangle breakdown in lower left corner.)

3. Locate 1 minute intersection "1117" within 1° quadrangle "LC" of "HJ" quadrangle. (See sample quadrangle breakdown in lower left corner.)

4. "Interchart Relationship" index should be used to determine the PC and AC chart upon which the Georef reference point falls.

Charts containing land area

UNIVERSAL WATER CHARTS

Lowrance Water Charts (Scale 1:2,000,000 (or 29 x 41 inches) covering 4° of lat. have been published for the waters of the World surrounding Canada in some detail. The charts are designed to be used with the Lowrance Loran Navigation System. Water that is charted within the normal geographical limits and the chart is designed for use in both north and south latitudes.

NOTE: Depth soundings given in fathoms and in feet below mean low water. Symbols and abbreviations used on these charts are explained on WAC, PC, AC (BU-4)

Lowrance Water Charts

AERONAUTICAL SYMBOLS

AERODROMES

AERODROMES WITH FACILITIES

SEAPLANE LOGOLAND

- Military
- Civil
- Joint Civil and Military

AERODROMES WITH EMERGENCY OR NO FACILITIES

- Landing Area
- Sheltered Anchorage

WHEN AERODROME PATTERNS ARE USED THE FOLLOWING SYMBOLS APPLY

Aerodromes with known hard surface runway pattern and with a minimum length of 3500 feet.

Aerodromes with well defined hard surfaced all-way landing area.

The aerodrome boundary is the real estate boundary of the aerodrome.

AERODROME DATA

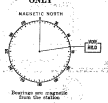
Aerodromes that are abandoned, closed or not usable are so labeled.

When specific information pertaining to airfield elevation is not available, the letter "A" is substituted for the respective character is replaced by a dash.

RADIO FACILITIES

Radio Range	VOR 80327	Cornel Beacon	CB/DN 1233
Visual-Aural Range	VOR 80L/M	Radar Beacon	RB/DN 1445L
Omni Range	VOR 80R	Bureau Beacon	BB/DN 1234
Radio Beacon	CB 1234/TT	Y-S Beacon	YS 4456
Marine Radio Beacon	M R B 75.2/20	Radio Broadcasting Station	RS 1389
Radio Direction Finder	DF 2346S	Communication Station	CS 4567S

VHF OMNIRANGE (VOR) AC SERIES CHARTS ONLY



Bearings are magnetic from the station.

AERONAUTICAL SYMBOLS

AERONAUTICAL LIGHTS

- Rotating or Oscillating Light
- Rotating Light (With flashing code lights)
- Rotating Light (With ocean lights)
- Flashing Light (With code)
- Flashing Light

MARINE LIGHT DATA

Marine Lights: Fixed — Gp. F.—Group Flashing — Occ.—Occulting — Alt.—Alternating — Fl.—Flashing — Int.—Interrupted Quick Flashing — I. Qk. Fl.—Interrupted Quick Flashing

Lightship: W.—White — G.—Green — R.—Red — Bu.—Blue — Y.—Yellow — Vi.—Violet — Gy.—Gray — Bl.—Black — Uc.—Uncolored

Marine lights are white unless colors are indicated; alternating lights are red and white unless otherwise indicated.

MISCELLANEOUS

- Obstruction (Numerals in italics indicate elevation above sea level of highest point of obstruction. Numerals in parentheses indicate height above ground. Characters are labeled, indicating nature of obstruction, i.e., water tower, building, etc.)
- Group Obstruction
- Radio Facility Obstruction
- Isogonic Line
- Ocean Station Vessel (Initial position)
- Visual Ground Sign
- Air Defense Identification Zone (ADIZ)
- Compulsory Corridors

Flight of aircraft prohibited — Hazards to Air Navigation — Visible hazards to Air Navigation

TOPOGRAPHICAL SYMBOLS

CITIES and TOWNS

- Metropolitan Areas — NEW YORK
- Large Cities — RICHMOND
- Cities — ARLINGTON
- Small Cities — SANGATE
- Large Towns — Corvette
- Towns & Villages — Avonia

HIGHWAYS and ROADS

- Dual Lane Highways
- Primary Roads
- Secondary Roads
- Trails
- U. S. Road Markers
- National, State or Provincial Road Markers
- Road Names — ALASKA HIGHWAY

RELIEF FEATURES

- Contours — Reliable; Depression; Approximate
- Bluffs, Cliffs & Escarpments
- Dunes
- Sand Areas
- Ridges

HYDROGRAPHIC FEATURES

- Swamps & Marshes
- Mud & Tidal Flats (Exposed at low tide)
- Fathom Curves & Bottom Characteristics
- Danger Line (Area uniformly coastal)
- Two Fathom Line (Area grounded in calm) (6 fathoms, 36 ft. below mean low water level)
- Charted Rocks (Bare or awash)
- Sand Bars (Exposed at low tide)
- Springs
- Wells & Water Holes
- Reefs, Coral & Rocky Ledges (Awash at low tide)
- Streams & Rivers — Perennial; Intermittent; Probable or Unsurveyed; Unclassified; Braided
- Intermittent Lakes; Dry Lakes & Salt Flats
- Drainage Dishes
- Canals — In use; Abandoned or under construction
- Flood Marked Areas
- Sand Deposits
- Dry Washes
- Glaciers

CULTURAL and MISCELLANEOUS

- Power Transmission Lines
- Telephone & Telegraph Lines
- Dams
- Building (except when labeled otherwise)
- Elevations (in feet) — Highest in a General Area (Highest on chart if beyond limits of map); Spot
- Mines and Quarries
- Mountain Passes
- Lookout Towers (Elevation is base of tower. (Height above ground)
- Forts
- Pipelines
- Race Tracks
- Stranded Wrecks (Exposed, reefed)
- Boundaries — International; State & Provincial; Territorial & Interterritorial; Zonal Composite; Defense; Upper Boundaries (land area only)
- Railroads* — Double Track; Single Track; Sidings & Spurs; Overpass; Underpass
- Bridges — Railroad; Highway
- Tunnels — Railroad; Highway

*In some Approach Charts railroad tics are spaced at one nautical mile interval with every fifth tick constituent

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